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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/505,656	02/17/00	PODLESNY	A 20181-5US

020350 MM92/0222
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EXAMINER

TAN, V

ART UNIT

PAPER NUMBER

2819

DATE MAILED:

02/22/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/505,656

Applicant(s)

PODLESNY ET AL.

Examiner

Vibol Tan

Art Unit

2819

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 February 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. In claims 2 and 3 Change "A" to "The".

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. (U.S. PAT. 5,598,371) in view of Hayakawa (U.S. PAT. 6,184,722 B1).

Lee et al. teaches all claimed features of claim 1 in Fig. 1, a data transfer arrangement comprising: two bus drivers (114, 116; 120, 122); a differential bus (line DIO and line DIOB) coupled to the bus drivers and to the voltage precharge source (PRECH); with the exception of teaching a latching sense amplifier coupled to the differential bus. However, Hayakawa teaches in Fig. 5A a latching sense amplifier (2) coupled to the differential bus (4, 6).

Therefore, it would have been obvious to one ordinary skill in the art at the time of applicants' invention to have combined the circuit of Lee et al. along with the circuit of Hayakawa to provide a sense amplifier that can sense a low level differential quickly and can amplify low level differential small swing input signals.

Regarding claim 2, Hayakawa further teaches in Fig. 5A the data transfer arrangement of claim 1, wherein the latching sense amplifier comprises a cross coupled latch amplifier (Q3-Q6).

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Regarding claim 3, Lee et al. further teaches in Fig. 1, the data transfer arrangement of claim 1, wherein the bus drivers consist of active pull up/pull down bus drivers (114, 114, 120, 122).

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Proebsting teaches a differential sense amplifier circuit. Shiratake teaches a sense amplifier circuit. Yamauchi teaches a signal transmitting circuit, small receiving circuit, signal transmitting/receiving circuit. Yoon teaches a sense amplifiers including bipolar transistor input buffers and field effect transistor latch circuits. Decuir teaches a system and method for a switch data bus termination.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vibol Tan whose telephone number is (703) 306-5948. The examiner can normally be reached on Monday-Friday (7:00 AM-4:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike J. Tokar can be reached on (703) 305-3493. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-0142 for regular communications and (703) 305-3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0959.


PATRICK WAMSLEY
PRIMARY EXAMINER

Vibol Tan

Patent Examiner, AU 2819